

REMARKS

Applicants thank Examiner Richard Shaffer and Examiner Eduardo Robert for participating in a personal interview with applicants' representative on March 13, 2008. The substance of the interview is incorporated into the following remarks.

Claim 47 has been rejected for failing to comply with the written description requirement. Specifically, the Examiner asserts that the application does not provide support for the limitation "the off-axis movement alone being capable of acting to cut tissue." Applicants note that the amendment filed on November 20, 2007 in response to the non-final office action deleted this limitation from claim 47. Accordingly, applicants request reconsideration and withdrawal of this rejection.

Claim 79 has been rejected for failing to comply with the written description requirement. In particular, the Examiner asserts that the application does not provide support for the limitation "wherein a maximum tangential speed of the cutter is at a center of cutting action." As discussed during the interview, applicants submit that support for this limitation may be found in the application at least at Figs. 8 and 10A-10D. In particular, for any given rotational speed, the portions of the cutter 230 that are located at a maximum distance from the axis of rotation of the cutter necessarily move at a maximum tangential speed. Thus, the cutting edges of the extended portions 234A, which, as shown in Fig. 8, are located at the center of cutting action, move at a maximum tangential speed of the cutter 230 when the cutter rotates because the cutting edges of the extended portions 234A are located at a maximum distance from the cutter's axis of rotation Y, as shown in Figs. 10A-10D. For at least these reasons, applicants request reconsideration and withdrawal of this rejection.

Independent claim 1 has been rejected as being anticipated by Hamlin (WO 92/08416) and as being unpatentable over Michelson (US Patent Application Publication No. 2002/0058944) in view of Reiley (U.S. Patent No. 6,440,138). Claim 1, as amended, recites, among other features, an inner member received within an outer member, the inner member defining a passage for removal of cut tissue through the inner member, and a cutter coupled to the inner and the outer members. The coupling of the cutter to the outer member restrains the

cutter from rotating at the same rate as the inner member. Applicants submit that Hamlin fails to describe or suggest the recited cutter and that no proper combination of Michelson and Reiley describes or suggests the recited inner member.

In Hamlin, the cutter shaft 52 and its endwall 62 (which the Examiner equates to the recited cutter) is coupled within rigid elbow connector 30 (which the Examiner equates to the recited outer member) to the drive shaft 70 (which the Examiner equates to the recited inner member) through a meshing of driven gear 68 of the cutter shaft 52 and drive gear 78 of the drive shaft 70. Notably, as shown in Fig. 4 of Hamlin, the gear ratio of the drive gear 78 to the driven gear 68 is one-to-one, and, therefore, as discussed during the interview and as acknowledged by the Examiners, the cutter shaft 52 necessarily rotates at the same rate as the drive shaft 70.

As acknowledged by the Examiner on page 6 of the final office action, Michelson fails to disclose that rotating drive rod 140 (which the Examiner equates to the recited inner member) defines a passage for removal of cut tissue through drive rod 140. The Examiner refers to Reiley to remedy this deficiency.

Reiley discloses a cutting tool 38 having an interior lumen 128 through which irrigating liquid may be introduced to a target site and liquids and debris may be aspirated from the target site. The Examiner asserts that, based on the teachings of Reiley, a person of ordinary skill in the art at the time of the invention would have been led to modify the drive rod 140 of Michelson to define a passage for removal of cut tissue therethrough in order to allow for irrigation and/or suction of cut tissue. Applicants disagree and submit that a person of ordinary skill in the art would not have been led to modify Michelson based on the teachings of Reiley to define a passage within drive rod 140 for removal of cut tissue because such a passage would be blocked by connector shaft 138 (see Fig. 4 of Michelson) or, alternatively, would be so obstructed by connector shaft 138 that the passage would become clogged, preventing it from functioning for removal of cut tissue. Accordingly, a person of ordinary skill in the art would not have been led to modifying Michelson in the manner envisioned by the Examiner, and, therefore, applicants

submit that the combination envisioned by the Examiner is the product of improper hindsight based on applicants' own disclosure.

For at least the above reasons, applicants request reconsideration and withdrawal of the rejection of claim 1 and its dependent claims.

Independent claim 37 has been rejected as being anticipated by Hamlin and as being anticipated by Michelson. Claim 37, as amended, recites, among other features, an inner member received within the outer member, the inner member defining a passage for removal of cut tissue through the inner member, and a cutter coupled to the inner and the outer members, the cutter including an extended portion extending distal of a distalmost point of the outer member. Applicants submit that Hamlin fails to describe or suggest the recited cutter and Michelson fails to describe or suggest the recited inner member.

In Hamlin, as discussed during the interview and as acknowledged by the Examiners, the cutter shaft 52 and its endwall 62 do not include an extended portion that extends distal of a distalmost point of the cutter sheath 46 (which the Examiner equates to the recited outer member). Rather, cutter shaft 52 and its endwall 62 are proximal to the distalmost point of the cutter sheath 46.

As acknowledged by the Examiner on page 6 of the final office action, Michelson fails to disclose that rotating drive rod 140 defines a passage for removal of cut tissue through drive rod 140. Moreover, for the reasons discussed above, a person of ordinary skill in the art would not have been led to modify the drive rod 140 of Michelson to include such a passage.

For at least these reasons, applicants request reconsideration and withdrawal of the rejections of claim 37 and its dependent claims.

Independent claim 47 has been rejected as being anticipated by Hamlin and as being anticipated by Michelson. Claim 47, as amended, recites, among other features, an inner member received within the outer member, the inner member defining a passage for removal of cut tissue through the inner member, and a cutter having a cutting edge that intersects a longitudinal axis of the inner member during the off-axis movement. Applicants submit that, for at least the reasons described above, Michelson fails to describe or suggest the recited inner

member. Moreover, applicants submit that Hamlin fails to describe or suggest the recited cutter. In particular, as discussed during the interview and as acknowledged by the Examiners, rather than intersecting a longitudinal axis of the drive shaft 70 during the rotational movement of the cutter shaft 52, the cutting edges of the mouth 64 of the cutter shaft 52 are spaced from the longitudinal axis of the drive shaft 70.

For at least these reasons, applicants request reconsideration and withdrawal of the rejection of claim 47 and its dependent claims.

Independent claim 72 has been rejected as being anticipated by Michelson. Claim 72, as amended, recites a tubular cutter that includes a lumen having two open ends and an axis extending between the two open ends, and first and second protruding shafts located 180° apart from each other along an outer surface of the cutter, the shafts being aligned transverse to the lumen axis. In Michelson, drive members 132, 134, cutting members 116, 118, and connector shafts 138 and 122 (which, together, are equated by the Examiner to the recited cutter) are not tubular and do not include a lumen having two open ends. Rather, these elements form a dual spool shape that includes depressions or grooves surrounding the shafts 138 and 122. For at least this reason, applicants request reconsideration and withdrawal of the rejection of claim 72 and its dependent claims.

Independent claim 80 has been rejected as being unpatentable over Michelson and Reiley. Claim 80, as amended, recites, among other features, an inner member received within the outer member, the inner member defining a passage for removal of cut tissue through the inner member, and a cutter defining a passage, wherein the axis of rotation of the inner member and the passage are coaxially alignable during the off-axis movement of the cutter. Applicants submit that, for at least the reasons described above, no proper combination of Michelson and Reiley describes or suggests the recited inner member. Moreover, as discussed during the interview and as acknowledged by the Examiners, the depressions surrounding shafts 138 and 122 (which the Examiner equates to the recited passage of the cutter) are not coaxially alignable with the axis of rotation of the drive rod 140 during the off-axis movement. Rather, the depressions surrounding shafts 138 and 122 are set apart and misaligned from the axis of rotation

of the drive rod 140. For at least this reason, applicants request reconsideration and withdrawal of the rejection of claim 80 and its dependent claims.

Independent claim 81 has been rejected as being anticipated by Michelson. Claim 81 recites a generally spherical cutter. As discussed during the interview and as acknowledged by the Examiners, Michelson fails to describe or suggest a generally spherical cutter. For at least this reason, applicants request reconsideration and withdrawal of the rejection of claim 81 and its dependent claim.

Applicants do not acquiesce in the Examiner's characterizations of the art. For brevity and to advance prosecution, however, applicants may have not addressed all characterizations of the art and reserve the right to do so in further prosecution of this or a subsequent application. The absence of an explicit response by the applicants to any of the Examiner's positions does not constitute a concession of the Examiner's positions. The fact that applicants' comments have focused on particular arguments does not constitute a concession that there are not other arguments for patentability of the claims. All of the dependent claims are patentable for at least the reasons given with respect to the claims on which they depend.

Applicants submit that all claims are in condition for allowance.

Please apply any charges or credits to deposit account 06-1050.

Date: _____

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Respectfully submitted,



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